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OVERALL EVALUATION OF ERTS IMAGERY FOR CARTOGRAPHIC APPLICATION

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May 1, 1973

Type I Progress Report for Period 1 March 1973 - April 30, 1973

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Type I Progress Report
ERTS-A

- a. Title: Overall Evaluation of ERTS Imagery for Cartographic Application
ERTS-A Proposal No.: MMC 233
- b. GSFC ID No. of P.I.: IN 014
- c. Problems: Loss of foreign coverage will curtail polar regions experiments.
- d. Accomplishments: By computing and fitting a UTM grid to the MSS bulk image and to a mosaic covering a 1° by 2° quadrangle, National Map Accuracy Standards were achieved at the 1:250,000 scale in two separate cases. This result will also be reported under experiment No. 211.
- e. Significant scientific results: The apparently successful fitting of a plane coordinate (UTM) grid to an ERTS bulk image represents a breakthrough of potential economic importance. If such results continue to be attained it means that ERTS imagery even in bulk form can be reproduced as planimetric image maps that meet National Map Accuracy Standards up to the 1:250,000 scale. Such maps permit positions of image points to be geodetically defined to within 75 meters (rms). Previous efforts to map with ERTS bulk images resulted in errors approaching 300 meters (rms).
- f. Published articles:
 - Unique Characteristics of ERTS (Colvocoresses) presented at the ERTS-1 Symposium March 1973
 - One memorandum for record (EC-16)
- g. Recommendations: Improvement in orbit stationkeeping to reduce image positions to ± 5 km from the prescribed. This will enhance the concept of mapping based on the image format.
- h. Listing by date of any changes in Standing Order Forms: NA
- i. ERTS Image Descriptor Forms: NA
- j. Listing by date of any changed Data Request forms submitted to Goddard Space Flight Center/NDPF during the reporting period: NA
- k. Status of Data Collection Platforms (if applicable): NA